REMARKS/ARGUMENTS

Amendments have been made to the specification and sequences from the text and figures have been incorporated into the sequence listing. A correction to the alignment of SEQ ID NO 32 has been incorporated into the specification. In response to the office action of June 12, 2001, applicants include with this response a Sequence listing and a Computer Readable Form of the Sequence Listing. The undersigned hereby states that the Paper Copy and the Computer Readable Form submitted in accordance with 37 CFR§ 1.821 are identical. No new matter has been added by these amendments.

In response to Election/Restriction Requirement applicants elect SEQ ID NO 10.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page(s) is/are captioned "Version with markings to show changes made". Favorable consideration is respectfully requested. Should the Examiner have any questions she is invited to contact John W. Harbour at the telephone number provided below.

Respectfully submitted,

By: Myra McCormak

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Dated: October 11, 2001

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Paragraph beginning at line 7, page 9, has been amended as follows:

Figure 2. Amino acid sequences of seven endoproteinase Lys-C-generated peptides of the cytochrome P-450 reductase from *P. somniferum* cell suspension cultures. Peptide 1 is SEQ ID NO: 1, Peptide 2 is SEQ ID NO: 2, Peptide 2' is SEQ ID NO: 3, Peptide 3 is SEQ ID NO: 4, Peptide 3' is SEQ ID NO: 5, Peptide 4 is SEQ ID NO: 6, Peptide 5 is SEQ ID NO: 7, Peptide 6 is SEQ ID NO: 8, and Peptide 7 is SEQ ID NO: 9.

Paragraph beginning at line 9, page 9, has been amended as follows:

Figure 3. Partial amino acid sequence comparison of plant cytochrome P-450 reductases. The shaded areas and arrows indicate the position and direction of the regions used for PCR oligodeoxynucleotide primer design. Arabidopsis thaliana is SEQ ID NO: 20, Catharanthus roseus is SEQ ID NO: 21, Helianthus tuberosus is SEQ ID NO: 22, Vigna radiata is SEQ ID NO: 23 and Vicia sativa is SEQ ID NO: 24.

Paragraph beginning at line 18, page 9, has been amended as follows:

Figure 5. Comparison of the amino acid sequences of the cytochrome P-450 reductase from *P. somniferum* and from *E. californica*. Top sequence, *E. californica*, SEQ ID NO: 25;

bottom sequence, *P. somniferum*, SEQ ID NO: 26; *, amino acid identity.

Paragraph beginning at line 21, page 9, has been amended as follows:

Figure. 6. Nucleotide sequences of cDNA from (a) *P. somniferum*, SEQ ID NO: 10 and (b) *E. californica*, SEQ ID NO: 11.

Paragraph beginning at line 32, page 9, has been amended as follows:

Figure 9. Amino acid sequences of (a) *P. somniferum*, SEQ ID NO: 12 and SEQ ID NO: 13 and (b) *E. californica*, SEQ ID NO: 14 and SEQ ID NO: 15 predicted from their respective cDNA nucleotide sequences. The start and stop codons are depicted in bold.

Paragraph beginning at line 1, page 10, has been amended as follows:

Figure 10. cDNA nucleotide sequences and their predicted amino acid sequences, of fragments subcloned into an expression vector: (a) *P. somniferum*, SEQ ID NO: 16 and SEQ ID NO: 17 and (b) *E. californica*. Both sequences are truncated versions of sequences represented in Figures 9a and 9b, lacking the leader sequences. Extra vector sequences/restriction sites derived during subcloning are shown in lowercase and the cDNA in uppercase.

Paragraph beginning at line 11, page 16, has been amended as follows:

Optimised PCR primers were then designed based on highly homologous sites on both the amino acid and nucleotide levels in the plant cytochrome P-450 reductase sequence comparison (Fig. 3). The precise sequence of the primers used for the first round of PCR was:

5'-CA ITI CII CCT CCT TTC CC-3' SEQ ID NO: 27 and
T SEQ ID NO: 28

3'-ACC TAC TTC TTA CGI CAA GG-5'. SEQ ID NO: 29
C TGC SEQ ID NO: 30--

Paragraph beginning at line 4, page 17, has been amended as follows:

Resolution of this first PCR experiment by agarose gel electrophoresis revealed a mixture of DNA products in the expected range of 400-450 bp. The bands in this size range were eluted from the gel and used as template for nested PCR with the following primers:

5'-CA ITI CII CCT CCT TTC CC-3' SEQ ID NO: 27 and
T SEQ ID NO: 28

3'-AAA CGI CGI TAI CGI GGI GCI IGI GTT GG-5' SEQ ID NO: 31
G ~~G~~ C ~~C~~ SEQ ID NO: 32